Title:
Steps to Transforming Clinical Education With On-Campus Clinical Simulation: The Experience of One BSN Program

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Session Title:
Simulation Education Strategies
Slot:
K 11: Tuesday, 31 October 2017: 9:00 AM-9:45 AM
Scheduled Time:
9:20 AM

Keywords:
Clinical education, Clinical substitution and Simulation

References:
[1]Larue, C., Pepin, J., Allard, É. Simulation in preparation or substitution for clinical placement: A systematic review of the literature. Journal of Nursing Education and Practice. 2015;5:132.DOI: http://dx.doi.org/10.5430/jnep.v5n9p132

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[3]Moule P, Wilford A, Sales R, et al. Can the use of simulation support pre-registration nursing students in familiarizing themselves with clinical skills before consolidating them in practice? : Center for learning and workforce research. 2006.

[4]Leigh GT. High-Fidelity Patient Simulation and Nursing Students' Self-Efficacy: A Review of the Literature. International Journal of Nursing Education Scholarship. 2008; 5(1): 1-17. PMid:18976234 http://dx.doi.org/10.2202/1548-923X.1613.

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[8]Hayden JK, Smiley R, Alexander M, et al. The NCSBN National Simulation study: A longitudinal, randomized, controlled study. Replacing clinical hours with simulation in pre-licensure nursing education. Journal of Nursing Regulation, 2014; 5(2): 4-41.

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Abstract Summary:

This session focuses on steps taken by a BSN program to transition 30% of agency-based clinical experiences to campus-based simulated clinical experiences. The aims of the project, supporting research, resources, clinical course substitution planning, staffing, faculty development, and approval and compliance processes will be presented.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
Discuss the process used to effectively replace 30% of agency-based clinical experiences with simulated lab-based clinical experiences.	Review of steps taken by the SON to implement the change to clinical learning: 1. Assembling the team 2. Review research related to clinical substitution to ensure use of best practices 3. Evaluation of resources: space, staffing, equipment, and other budget consideration 4. Mapping of clinical courses and clinical hours to determine which courses should be selected, how many hours of direct patient care is necessary for professional role development, and the amount of on-campus simulation that should be offered to enrich and expand clinical knowledge per course. 5. Faculty development needed 6. Evaluation methods to ensure effectiveness
Discuss the benefits and challenges of implementing this new model of clinical nursing education.	Benefits: Ensure similarity of learning experiences between students Opportunity to experience critical patient events in a safe environment Increase student confidence Enhance student engagement in clinical thinking and decision-making Faculty research opportunities Improve all simulation experiences (Graduate and Undergraduate) through the adoption of Standards (INACLS) and the standardization of debriefing methods. Challenges: Faculty and staff development Clinical Education Lab space and resources Maintaining consistency and quality across clinical groups and courses. Scheduling with clinical agencies; reduction in unit use, but ensuring best use of the resource

Abstract Text:

Introduction

The School of Nursing (SON) transitioned 30% of agency-based clinical experiences to campus-based simulated clinical experiences in the accelerated BSN pre-licensure program. The overarching goal is to maintain or improve the quality of graduates as reflected in NCLEX-RN pass rates and employer satisfaction. Evaluation of the simulation substitution program is ongoing. There were two compelling motives to implement this new model of clinical education. The first and most important reason was to

improve clinical education for students, the other was the potential opportunity to expand pre-licensure enrollments.

Simulation is defined as “the most accurate possible representation of a care situation”[1 (p.132)] and can be accomplished through the use of standardized patients and patient simulators of varying fidelity simulating encounters with patients in hospital, outpatient and community settings. The benefits of simulation are many and include: ensuring a similarity of learning experiences between students[2], opportunities to experience critical patient care events in an environment that is safe for both patients and students[3], student confidence building[3, 4, 5] and enhanced student engagement[6].

The use of simulation in place of traditional clinical experiences has been endorsed by the National Council of State Boards of Nursing (NCSBN) [7]. The NCSBN conducted a large scale, randomized-controlled trial of national simulation that demonstrated substitution for up to 50% of traditional clinical hours with high quality simulation produced comparable end- of-program educational outcomes[8]. In a recent systematic review examining the use of simulation in place of traditional clinical experiences the authors concluded that “simulation as an adjunct to clinical placements seems to have many advantages for preparing students for clinical reality”[3] .

Increasing enrollments in pre-licensure nursing programs is most often limited due to the lack of sufficient clinical sites to accommodate students and the lack of qualified faculty. A newly emerging barrier is the growing number of clinical agencies who have reduced the numbers of students they will accommodate. A strategy to overcome the barrier of insufficient clinical placements is to substitute simulated learning experiences for agency-based clinical experiences.

In order to achieve these aims the school implemented on campus simulated learning experiences replacing 30% of traditional agency-based clinical beginning with the Accelerated BSN program. Transition to the 30% simulation model in the traditional BSN program will occur when it is determined that the resources are available to support implementation.

Required Resources:

Currently the SON has a Clinical Education Lab (CEL) located on two campuses that offer a variety of clinical focused learning opportunities ranging from fundamental skills to high fidelity simulation, skill trainers, human patient simulators, standardized patients, and hospital-like settings and clinic-simulated environments. Video capture technology is available and allows student self-evaluation and opportunities to identify areas for improvement in small group debriefing sessions. Three new fulltime positions were need to support the initiative: 2 clinical nurse faculty, 1 simulation technician, and additional student workers (both undergraduate and graduate assistants). In addition monies for a new simulator, computers, furniture, disposable supplies, hiring of standardized patients, and professional development funds were budgeted. The total cost for implement of the new model was 1.5 million dollars. Utilization of our current laboratory space was maximized by extending hours into the evenings and week-end as needed.

Course Planning & Staffing for Simulation Substitution

The following strategy were implemented to enable effective on-campus simulation-based experiences (SBE).

1. Courses in which SBE is determined to be appropriate will be identified.
2. SBEs appropriate for each identified clinical course will be selected. Generally, these experiences are focused on frequent and routine types of nurse-patient events.
3. Clinical groups are scheduled for the CEL on the same day they would normally attend an agency-based clinical.

4. The group's clinical faculty member accompany them to the CEL and participate as a content expert and evaluator.
5. Each hour of simulation counts for 2 hours of traditional agency-based clinical time.
6. The CEL director in collaboration with the CEL clinical faculty, LSN placement coordinator and LSN clinical faculty coordinator develop a master schedule each semester that includes all planned SBEs for each clinical group.
7. The professional simulation team (PST) includes:
    1. Content Expert (CE)

The CE is the clinical group's faculty member who serves as the content expert, assisting in the pre-brief and the debriefing of students from a content perspective. In addition, this team member evaluates the ongoing progress of students in meeting the course objectives, identifying strengths and weaknesses, and then implements necessary educational strategies to further student development.

1. Simulation Facilitator (SF)

The SF is either CEL professional staff, CEL clinical faculty, or CEL adjunct faculty. The role of the facilitator is to pre-brief, debrief students, and in collaboration with the content expert, evaluate the students.

1. Simulation Operator (SO)

The SO is either the simulation technician or student workers trained to work as operators. The SO manages the technical aspects of the simulation experience. This includes the running of the simulation manikins, setting up and tearing down the simulation laboratory, managing the video capture and sound aspects of the simulation.

Selecting Courses for SBE

In order to plan effectively for implementation courses need to be identified as appropriate for on-campus clinical replacement. In addition, the percentage of replacement in each course needed to be determined. Difficulty in student placement and lack of consistency of student learning experiences were considered when determining the amount of replacement with on-campus simulation in each course. Courses that presented the greatest challenges to placement and quality learning experiences were chosen for 50% replacement. Courses that did not pose the same degree of challenge were designated for 25% replacement. This approach resulted in an overall replacement rate of 30%.

Regulatory Compliance

Prior to beginning this journey the State Board of Nursing (SBN) educational consultant was contacted for an initial discussion of the proposed change to clinical education. This was a critical step in the planning process since the change could not be implemented without SBN approval. Our particular SBN does not prescribe the amount of simulation a program is permitted to substitute, however a substantive change report that includes a well thought out plan for implementation and evaluation is required.

The AACN Baccalaureate Essentials states: "Simulation experiences argument clinical learning and are complementary to direct care opportunities essential to assuming the role of the professional nurse." Our approach requires a specific amount of on-site clinical hours based on faculty determination of the amount needed to ensure appropriate direct care experience. On-campus clinical simulation supplements, enriches and expands these experiences creating an effective clinical learning program.

Program Evaluation

The goal of evaluation of the new clinical program to ensure that we are providing an evidence-based simulation program that meets the learning needs of our students. An important goal is to obtain accreditation of the simulation lab through the Society for Simulation in Healthcare and to increase the number of faculty are certified simulation educators. Program effectiveness is measured using student course and end of program evaluations, faculty evaluation of student clinical performance, NCLEX-RN pass rates, and employer satisfaction.

Benefits and Challenges

The benefits of moving to this model of clinical education include: the ability to ensure similarity of learning experiences between students, opportunity for students to experience both routine and critical patient events in a safe environment, increase student confidence, enhance student engagement in clinical thinking and decision-making, faculty research opportunities, and improve all simulation experiences, both undergraduate and graduate, through the adoption of International Simulation Standards and the standardization of debriefing methods.

The challenges that continue include: faculty and staff development, particularly in the area of debriefing, clinical education lab space and resources, maintaining consistency and quality of simulation experiences across clinical groups and courses, and scheduling rotations with clinical agencies in a manner that ensures best use of this valuable resource.

Summary

Replacing select amounts of traditional agency-based clinical time with on-campus simulated lab-based experiences requires detailed planning, incorporation of evidence-based best practices, thoughtful and well-designed implementation, and ongoing evaluation. The steps taken by our program to transform its clinical education program through simulation provides an example that may be helpful to others considering this change.